REFUGE TRIP REPORT

Wildlife Management Biologist, Jacksonville, FL

Refuge: St. Vincent NWR Dates: December 10 - 12, 1986

Reasons: Observe condition of harvested deer and habitat

Accomplishments:

Deer herd/harvest/habitat observations

One deer had been harvested when I departed the island mid-day Friday. This was a 79 lb. 3½ year old buck in poor condition. In a follow-up telephone conversation, Jerry advised five more deer were taken during the three day archery hunt. State biologist Shea advised four of these deer were in poor condition (kidney fat 0-1), one deer was in fair condition (kidney fat 2.5), and one was in excellent condition (kidney fat 4). This was about the same as observed in August during APC collections. At that time, Dr. Vic Nettles was very concerned about the poor condition of the deer.

Casual observations during my refuge visit indicated heavy ungulate utilization on several preferred browse species such as wax myrtle, youpon, greenbriar, ground oaks, and gallberry. Acorn production was reported to be very good this year, but the crop has already been depleted on the island. An abundance of acorns are still on the ground in mainland areas not subjected to heavy predation. The above observations seem to indicate that even with the removal of white-tails last hunt season, the available browse and acorn mast is still being over utilized. When one considers the white-tail herd was likely reduced around 50% last year, the above observations become concerning.

From general observations and necropsy analysis during APC collections, it appears white-tail production may have been severely reduced this past year. This is probably associated with the acorn failure in 1985. Considering the competition for acorns and poor physical condition of the deer this fall, production will likely be reduced again in 1987. Studies show a direct correlation between

acorn and deer production on southern barrier islands. Because of the low quality of browse on barrier islands, acorns are usually necessary for deer to develop sufficient energy reserves for does to carry fawns through gestation and the first few weeks following parturition.

Another factor worthy of notation is the pruning of oak trees during the 1985 hurricanes. This may result in a 20-30% reduction of acorns for the next 4-5 years, which will also increase the significance of competition between ungulates.

It appears the white-tail herd reduction during the 1985 hunt season has not resulted in expected habitat improvements. This is somewhat understandable when one evaluates the harvest in relation to total ungulates (excluding hogs as population estimates are unavailable).

Using rounded census estimates from the University of Georgia studies and converting sambar deer into white-tail animal units, the overall significance of last year's harvest is easier to grasp. In relation to food intake, one sambar is equivalent to about three white-tail animal units.

may be a 1/4 ratio was

University of GA 84/85 estimates		White-tail A.U.'s
200 sambar	x 3 A.U.'s	600
400 white-tails	x 1 A.U.	400
? feral hogs		?
		1,000 + A.U.'s present

White-tail deer harvest		
1985 hunt season	168 deer	
Rough est. crippling loss 20%	+ 32	
	200	- 200 A.U.'s removed
		800+ A.U.'s remaining

Generally last year's white-tail harvest likely resulted in less than a 20% reduction of A.U.'s. If one considers hogs, perhaps this would be further reduced to around 15%. Considering carrying capacities had likely been exceeded, this apparently did not result in a significant reduction in total A.U.'s for appreciable habitat or white-tail improvements.